



SPECIFICATIONS

MODEL NO
OBO-16BN-0C-01A

PART NAME
ELECTRET CONDENSER MICROPHONE

SHEET
OBO PRO.2 INC.

2012SEP 13

文件发行章

MODEL NO : OBO-16BN-0C-01A

Features:Conformity RoHS Directive(2002/95/EC) Requests.

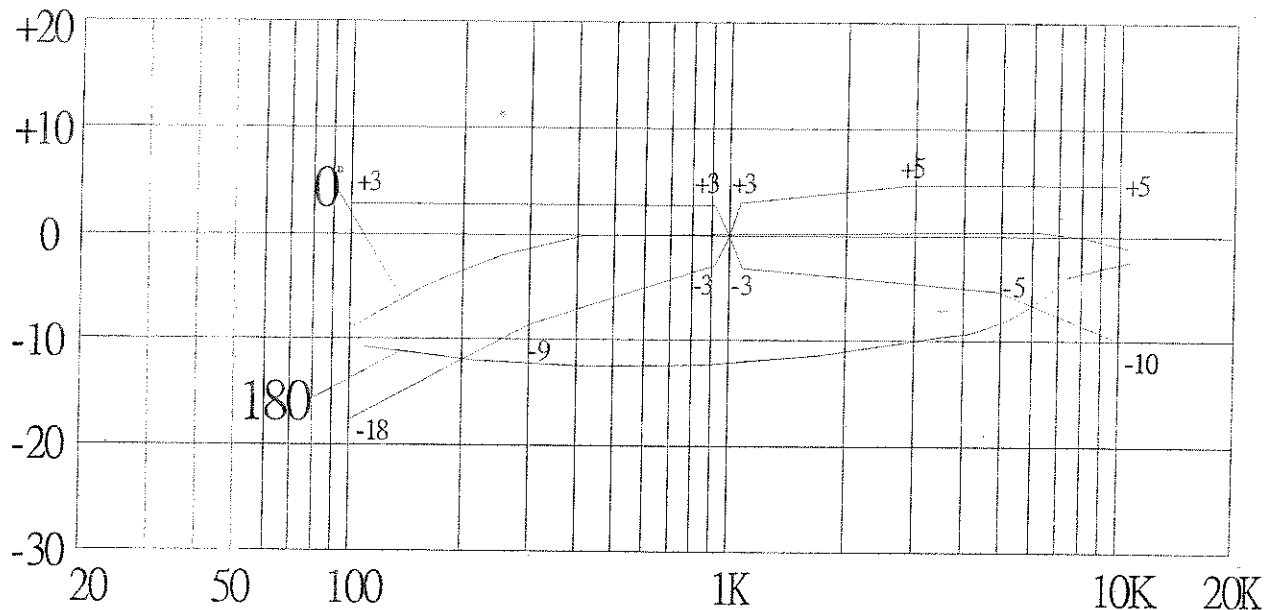
1. ELECTRICAL CHARACTERISTICS

Test Condition:(Vs=2.0V,RL=2.2KΩ,Ta=20±2°C,R.H.=65±5°C)

Directivity : Unidirectional

No	Parameter	Symbol	Condition	Limit			Unit
				Min	Center	Max	
1.1	Sensitivity	S	F=1KHz,S.P.L.=1Pa 0dB=1V/Pa	-54	-50	-46	dB
1.2	Output Impedance	Zout	F=1KHz			2.2	KΩ
1.3	Current Consumption	IDSS	VS=2.0V, L=2.2KΩ			500	μA
1.4	Signal to Noise Ratio	S/N	S:(F=1KHz,S.P.L.=1Pa) N:(A-Weighted Curve)	60			dB
1.5	Sensitivity reduction	ΔS-VS	VS=1.5V to 3.0V			-3	dB

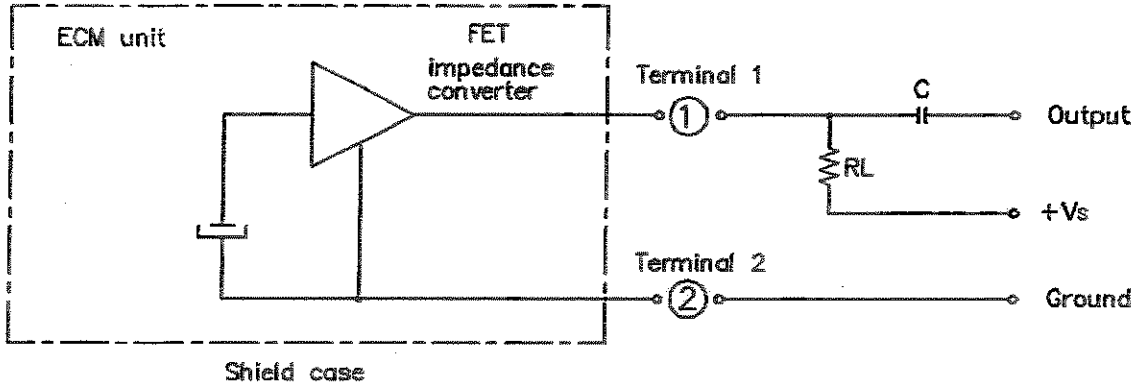
1.6 Typical Frequency Response Curve Limit



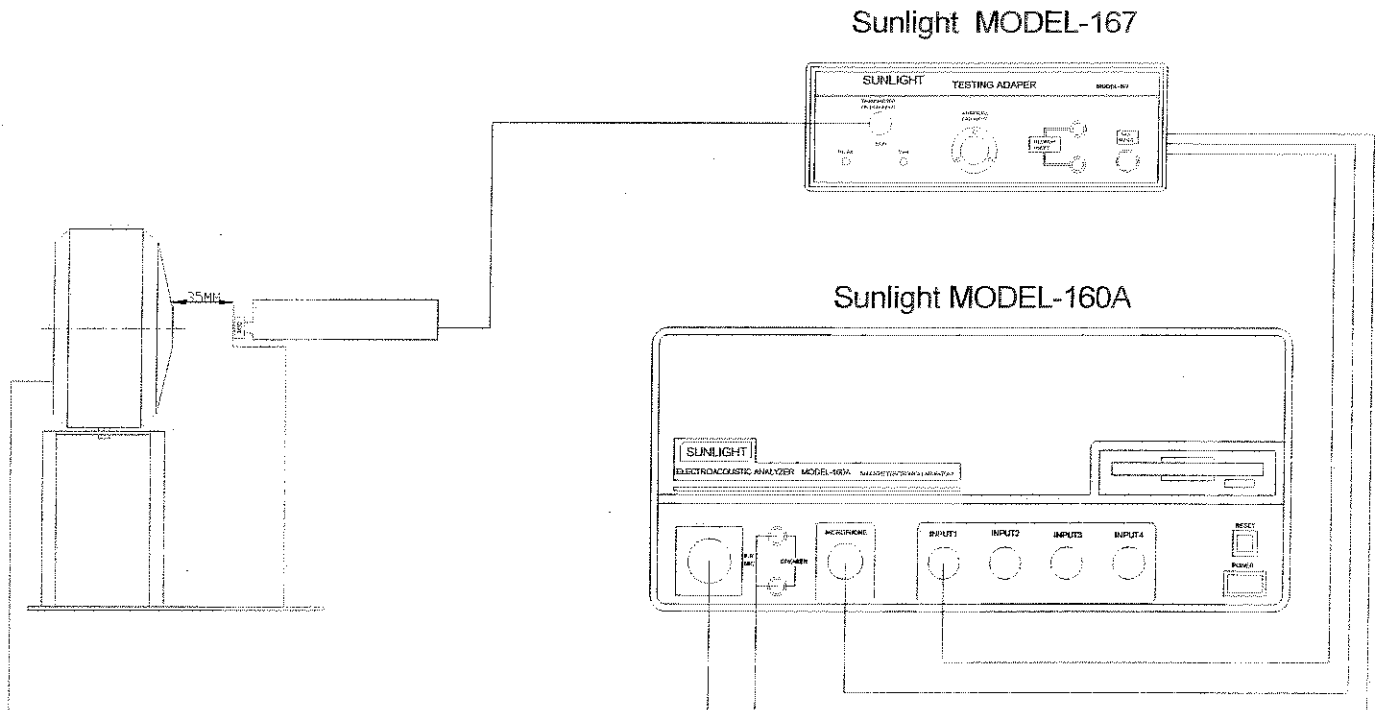
◎Frequency: 50~16,000Hz

◎Max Operatint Voltage: 10V

2. MEASUREMENT CIRCUIT



3. MEASUREMENT METHOD



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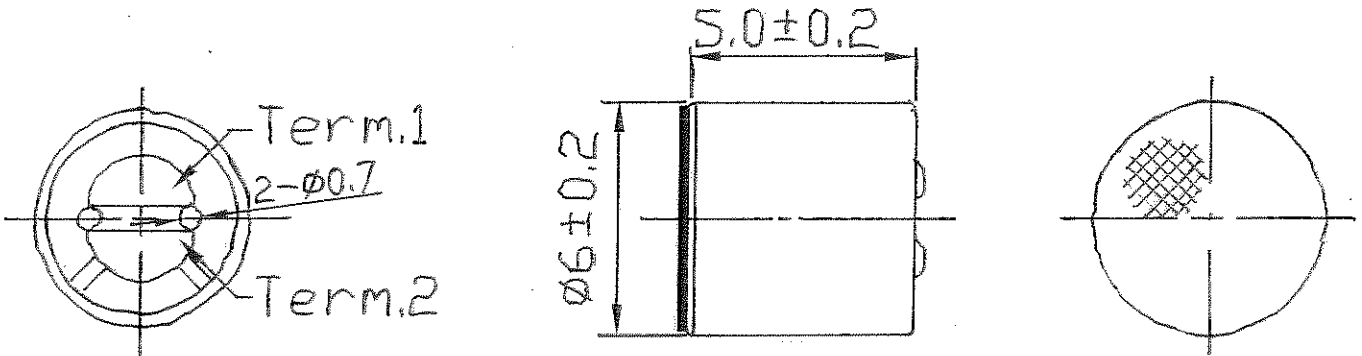
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4. ASS'Y DRAWING

4.1 Soldering Standard : $330 \pm 5^{\circ}\text{C}$ / Max. 2 seconds

4.2 Mechanical Layout and Dimensions :

Unit:mm



5. TEMPERATURE CONDITIONS

5.1 Operating Temperature Range: -20°C ~ +60°C

5.2 Storage Temperature Range: -25°C ~ +70°C

6. RELIABILITY TEST

Vibration Test	To be no interference in operation after vibrations, 10Hz to 55Hz for 1 minute full amplitude 1.5mm, for 2 hours at 3 axes .
Drop Test	The microphone unit without packaged must be subjected to each 3 drops at 3 axes,the height of 1 meter to 20 mm thick wooden board.
Temperature	(a) After exposure at +70°C for 72 hours, sensitivity to be within ±3dB from initial sensitivity. (b) After exposure at -25°C for 72 hours, sensitivity to be within ±3dB from initial sensitivity. (The measurement to be done after 6 hours of conditioning at 25°C)
Humidity Test	After exposure at +60°C and 90%~95% relative humidity for 240hours. sensitivity to be within ±3dB from initial sensitivity. (The measurement to be done after 6 hours of conditioning at 25°C)
Temperature Cycle Test	After exposure at +70°C for 1 hr, from +70°C to +25°C for 0.5 hr ,at +25°C for 1 hr, from +25°C to -20 °C for 0.5 hr ,at -20°C for 1 hr, from -20°C to +25°C for 0.5 hr , after 10 cycles , The sensitvity to be within ±3dB from initial sensitivity. (The measurement to be done after 6 hours of conditioning at 25°C)

7. CONCEPT OF UNIT

The difference between concept of unit "Pascal" and the one of unit " μbar" can be explained as follows. in calibrating the sensitivity of ECMS. the sensitivity is manifested differently according as the unit is "Pascal" or " μbar". That is the sensitivity will be increased by 20dB in the usage of unit "Pascal". Example : -70dB(0dB=1V/μbar)=-50dB(0dB=1V/Pa)

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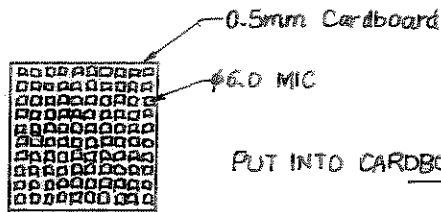
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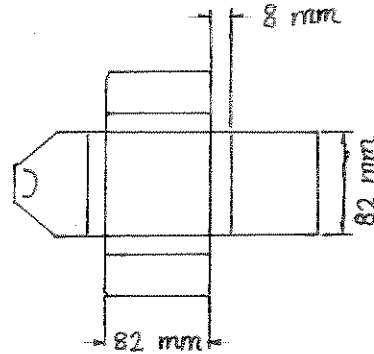
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8. PACKAGING



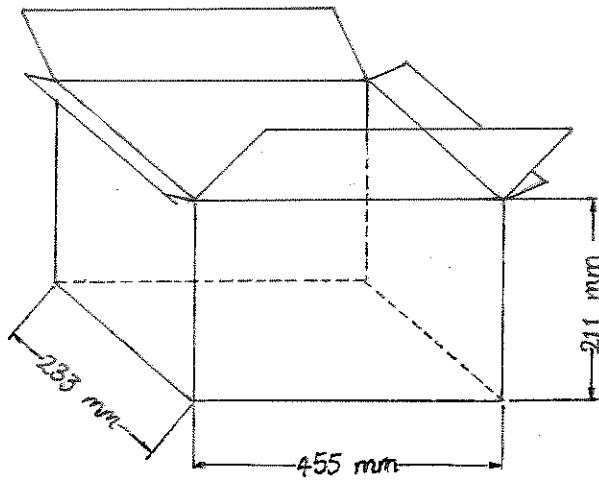
PUT INTO CARDBOX



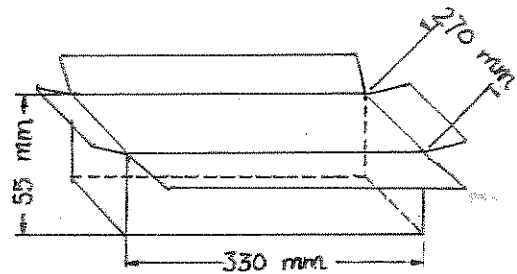
CARDBOXES(100 pcs)

100 pcs / 1 ANTI-Static Sponge Tray

LOAD IN



2 MIDDLE BOXES / PER
CARTON (20000 pcs)
(IMPORTED CARTON MATERIAL)



100 CARDBOXES / PER
MIDDLE BOX(10000 pcs)
(IMPORTED CARTON MATERIAL)

LOAD IN

Firm: **Model:** Lot: 0.001 09-11-2012 Time: 14:32
 1000Hz sens. = -52.3dBV/Pa PASS Limit: -54.0dBV/Pa S Sens. S -46.0dBV/Pa
 = -72.3dBV/ubar Frequency response: PASS (Best fit)
 Supply = 2.01 VDC Load R = 2.20 kΩ Step size: 1/12 Oct. (Fast)

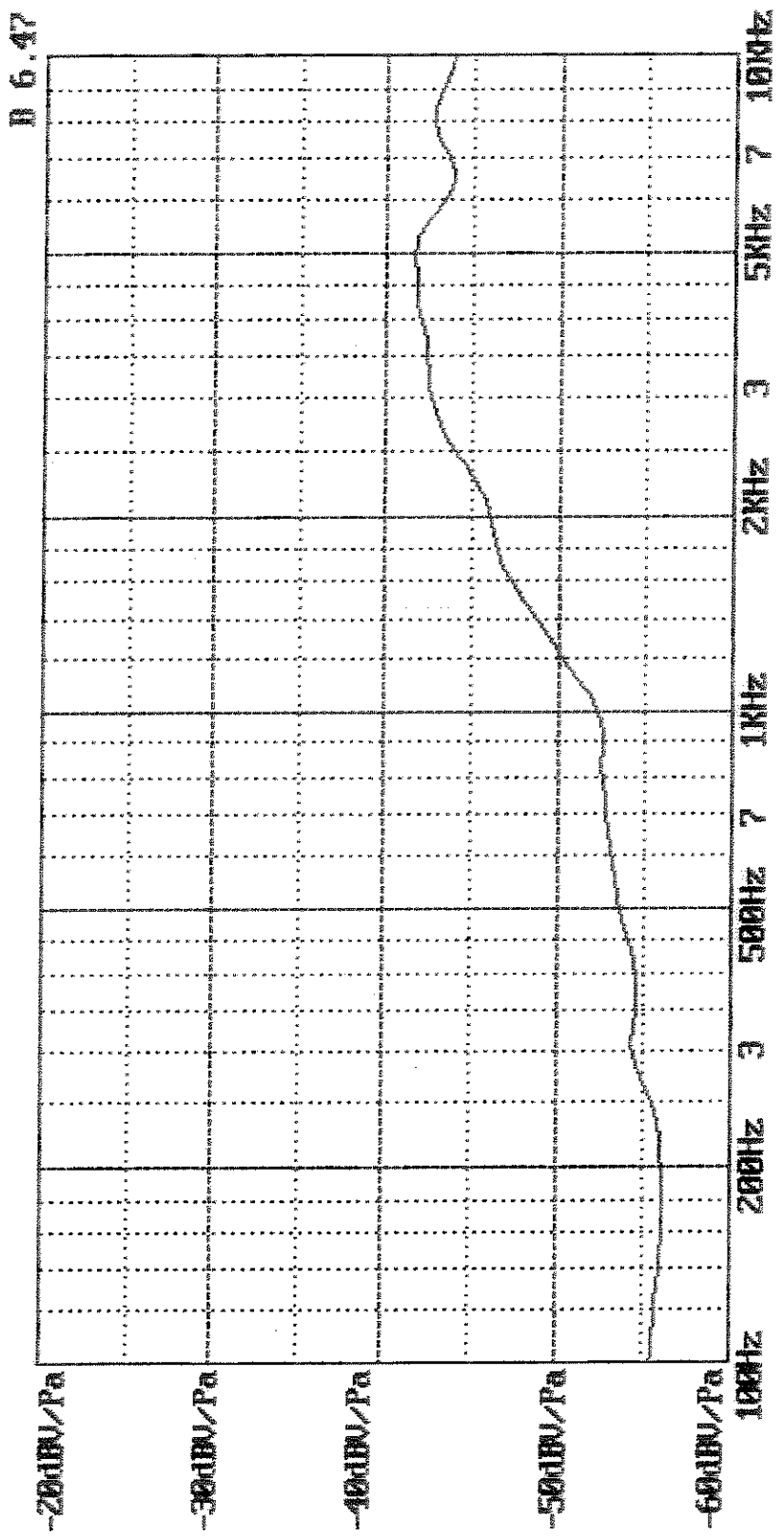


Fig.:

Measured using Sunlight 170/160: Fax: 806-2-22230727